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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,467

04/12/2006

Shinichi Kaga

2006-0526A

3223

513

7590

10/28/2009

WENDEROTH, LIND & PONACK, L.L.P.

1030 15th Street, N.W.,

Suite 400 East

Washington, DC 20005-1503

EXAMINER

COX, ALEXIS K

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

10/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,467	<b>Applicant(s)</b> KAGA ET AL.	
	<b>Examiner</b> ALEXIS K. COX	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 28, 30-35 and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28, 30-35 and 37-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3744

4. Claims 28, 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US Patent No. 5,921,095) in view of Viegas (US Patent No. 6,062,030) and Linstromberg (US Patent No. 5,606,486).

Regarding claim 28, Lee et al discloses a refrigerating storage cabinet comprising a heat insulating housing (5, see column 1 lines 42-45; 12, see column 4 lines 51-52 and column 5 lines 12-14); a compressor (6, see column 4 line 35; see also column 1 line 29), a condenser, expanding mechanism, and evaporator being inherently present in the system of Lee et al. Lee et al further discloses a control means (16, 17, see column 5 line 50; see also figure 6) storing a plurality of refrigerating specifications (see column 6 lines 16-24), at least one for refrigerating and one for freezing, and operating the refrigerating equipment according to the specifications stored. It is noted that Lee et al does not explicitly disclose the use of a single set of materials for both freezer and refrigerator modules, although as Lee et al only discloses a single pattern of construction, material proportions and types are the only variants disclosed by Lee et al to physically distinguish between freezer and refrigerator modules. It is further noted that Lee et al does not explicitly state the use of a time-varying change mode of dropping of a physical amount with respect to refrigeration, the physical amount including an internal temperature of the heat insulating housing; more specifically, Lee et al does not explicitly perform pull-down cooling and control refrigeration according to the internal temperature monitored. The programming concept of pull-down cooling in a multi-compartmented refrigerated space is well known in the art, as is demonstrated by Viegas (see column 3 lines 23-29), and as such it would have been obvious to one of

Art Unit: 3744

ordinary skill in the art at the time of the invention to implement the pull-down cooling of Viegas in the system of Lee et al in order to provide better temperature control within the refrigerator/freezer in question. Linstromberg explicitly discloses a single compartment which can be used as a refrigerator or freezer (see figure 2). As the only difference between the refrigerator and freezer compartments of Lee et al is materials, the varied selection of which was done to reduce construction costs, and it is well known as a common mechanical expedient to use the same materials to reduce construction costs by providing interchangeable parts and bulk discounts, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a single unit type for both refrigerator and freezer units in the system of Lee et al, as is disclosed by Linstromberg, in order to simplify assembly and therefore reduce labor costs.

Regarding claim 37, a pull down cooling characteristic is, as usually applied, one where faster or stronger cooling is applied when first starting a unit or when the temperature being controlled goes above an upper limit. This cooling is reduced or stopped at another threshold temperature or temperatures, such that the temperature is controlled in a range about the desired temperature. It is therefore disclosed by the systems of Lee et al and Viegas that the steps claimed in claim 37 be used in accordance with the specified refrigeration characteristic.

5. Claims 30-35 and 38-40 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US Patent No. 5,921,095), Viegas (US Patent No. 6,062,030), and Linstromberg (US Patent No. 5,060,486) in view of Valence et al (US Patent No. 5,600,966).

Art Unit: 3744

Regarding claim 30, it is noted that Lee et al, Linstromberg, and Viegas do not explicitly disclose the presence of a condensation-preventing heater with variable heating performance located about an opening of the heat insulating housing or a switching device provided to switch the variable heating performance of the heater to correspond to the appropriate one of the plurality of refrigerating specifications. Valence et al discloses the presence of a condensation-preventing heater (46, see column 3 lines 38-43) with variable heating performance (46, 48, see column 4 lines 44-47) and located about an opening of the heat insulating housing, and the control unit of Lee et al (16, 17, see column 5 line 50; see also figure 6) is capable of controlling the heating element of Valence. Further, as the function and structure of Lee et al, Linstromberg, Viegas, and Valence et al are similar, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the condensation preventing heater of Valence et al in the system of Lee et al and Viegas to prevent excess condensation, as stated in column 3 line 43 of Valence et al.

Regarding claim 31, Lee et al discloses an identifying means (see column 6 lines 4-16; see also figures 11 and 12) configured to identify the refrigerating specification of the heat insulating housing to which the refrigerating unit is detachably attached (14, 15, see column 5 lines 41-48) by providing an identification signal indicative of the identified refrigerating specification (see column 4 lines 11-15), and the control means determines the selected one of the plurality of refrigerating specifications based on the identification signal from the identifying means (see column 6 lines 4-24).

Art Unit: 3744

Regarding claims 32, 38, and 39, the identifying means of Lee et al includes a detecting portion (microcontroller 16) provided on one of the refrigerating unit or the heat insulating housing, and a detected portion (switches 40, see column 6 lines 4-15) provided on an other of the heat insulating housing or the refrigerating unit, wherein an interaction between the detecting portion and the detected portion determines the identification signal (see column 6 lines 4-15; see also figure 12).

Regarding claim 33, Lee et al discloses the refrigerating storage cabinet to comprise a set internal temperature input section for receiving a set internal temperature for the heat-insulating housing (16, 17, see column 5 line 50; see also figure 6) wherein the identifying means determines the appropriate one of the plurality of refrigerating specifications based on the set internal temperature (see column 6 lines 16-24).

Regarding claim 34, Lee et al discloses a signal recording section (40, see column 6 line 11) arranged on a heat insulating housing for storing the identification signal, and a reading section (31, see column 6 line 12) capable of reading the identification signal from the signal recording section and transmitting the identification signal to the control means (see column 6 lines 13-15).

Regarding claim 35, Lee et al discloses an information recording section storing supplemental information (31, 16, see column 6 lines 29-31 and 16-24) and an information conveying means for reading and communicating the supplementary information to the control means, and the supplementary information includes at least one of a size of the heat insulating housing or a heat invasion amount characteristic, as

Art Unit: 3744

the temperature change of the interior space over time is a heat invasion amount characteristic (see column 6 lines 16-24).

***Response to Arguments***

6. Applicant's arguments with respect to claims 28, 30-35, and 37-39 have been considered but are moot in view of the new ground(s) of rejection.

To the extent to which the applicant's arguments are still applicable, the response is as follows:

On page 9, the applicant argues that the refrigerating and freezing units of Lee et al are different in construction from that of the present invention as recited in independent claim 28. This argument is moot in view of the new grounds of rejection. Additionally, the applicant is respectfully reminded of the well-known fact that a broken or overstuffed refrigerator will often act as a freezer, and a broken or insufficiently defrosted freezer can act as a refrigerator.

On page 9, the applicant further argues that the refrigerator disclosed by Lee includes one micro-controller which controls the plurality of refrigerating units, and the present invention consists of units which may be controlled by respective control units.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., respective control units) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).



In addition to the applicant's failure to claim individual control units for each refrigerator section, the applicant is respectfully reminded that although the units of Lee et al can be operated by a single, central controller, they do not have to be. Nothing prevents the units of Lee being installed, side by side, with a controller in each unit; indeed, having redundant controllers such that if one is broken others are available is an old and well known damage mitigation technique. Therefore, even if this argument were not spurious due to the failure to claim the feature discussed, it would still be unpersuasive, as it would have been obvious to one of ordinary skill in the art at the time of the invention.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stormo (US Patent No. 5,839,287) explicitly discloses a compartment in a freezer unit which is selectively operable as a freezer or a refrigerator. Gerner (US Patent Application Publication No. 2004/0226304) discloses a refrigeration and or freezer system in which units can be used for either refrigeration or freezing, in a modular style.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXIS K. COX whose telephone number is (571)270-5530. The examiner can normally be reached on Monday through Thursday 8:00a.m. to 5:30p.m. EST.

Art Unit: 3744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AKC/

/Frantz F. Jules/

Supervisory Patent Examiner, Art Unit 3744